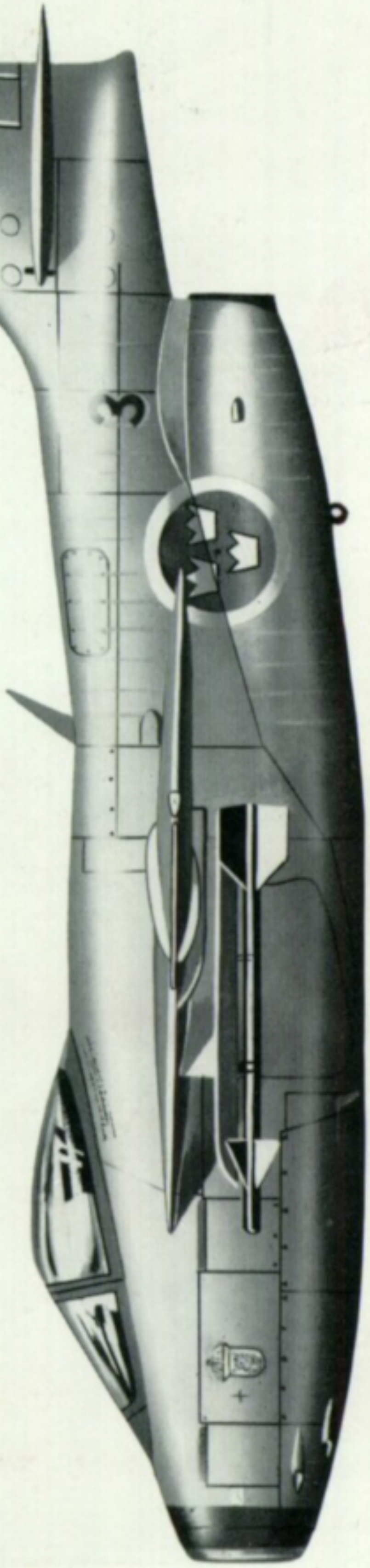
PROFILE PUBLICATIONS

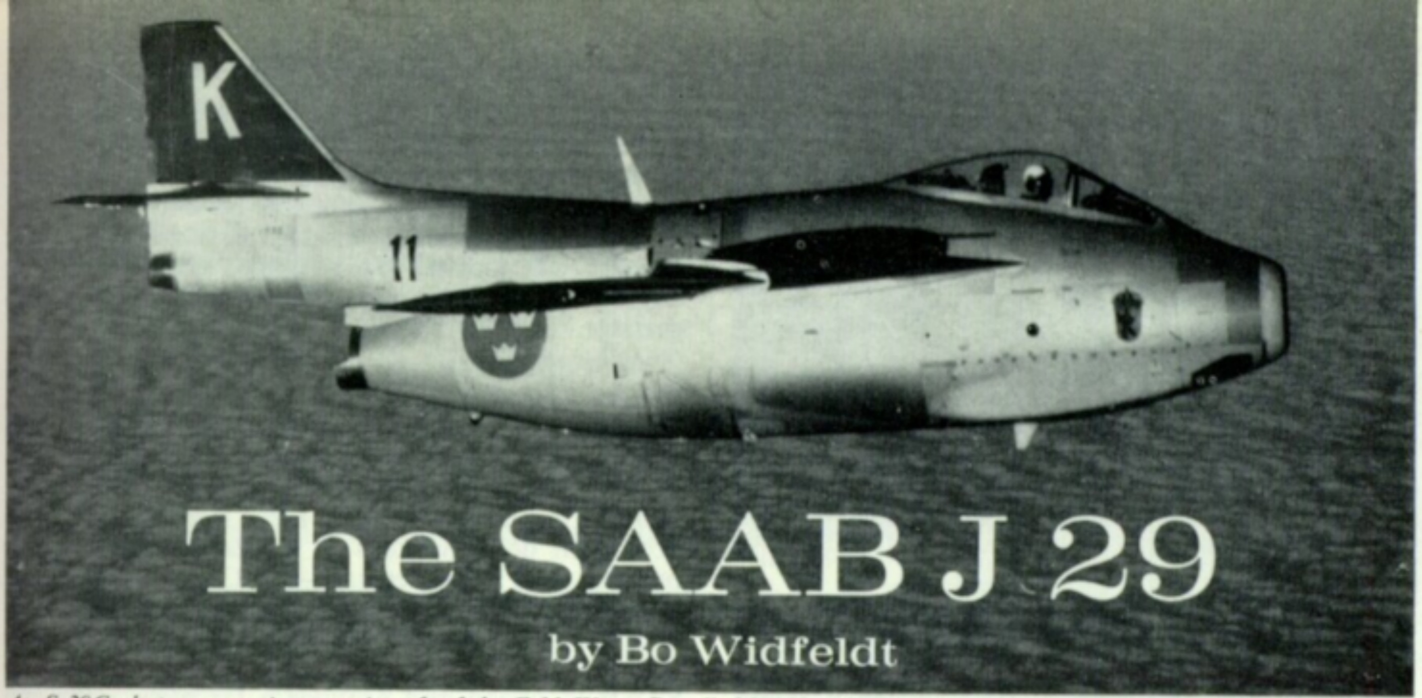
The SAAB J 29

NUMBER 36



The SAAB J 29

by Bo Widfeldt



An S 29C photo-reconnaissance aircraft of the F 11 Wing. Serialled 29930 it had a light grey fin with a yellow "K", and the F 11 Wing badge was displayed on the nose.

During W.W.II Sweden experienced a degree of technical isolation, for all aeronautical engineering progress achieved abroad was carefully shrouded in so far as it possessed any military value. Towards the end of the war many of the engineers employed at Svenska Aeroplan A.B. (SAAB) were aware that they had fallen behind in aeronautical progress, particularly in the field of jet propulsion, in which both the British and Germans had carried out secret development on a large scale. The results of this work were disclosed suddenly at the end of the war with the appearance of several types of jet aircraft, which were superior to all contemporary propeller-driven types.

SAAB made strenuous efforts to catch the leaders in the jet propulsion race, and they achieved a great deal despite the lack of suitable research facilities. Certain resources were available and a number of prominent Swedish engineers were working on design studies although no actual development work had taken place. The view held then was that the practical application of the system belonged to the future.

On the initiative of the Swedish Air Force, however, the design of jet engines was undertaken by a number of Swedish companies, and in the spring of 1945, SAAB was commissioned to investigate the most suitable configuration for a jet propelled fighter.

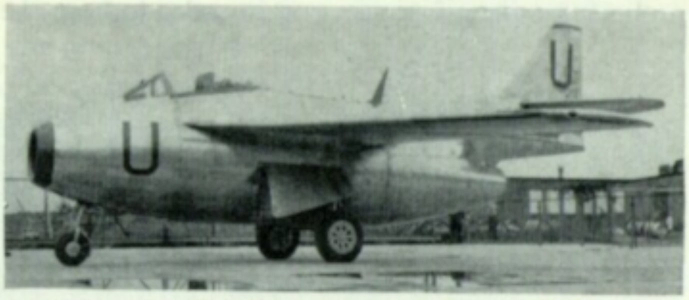
PRELIMINARY STUDIES

The first design drawn up during this period was the RX 1. It featured twin tail booms, similar to those of the SAAB 21A and de Havilland Vampire, and was to be powered by an engine delivering some 13,300 lb. thrust. Maximum speed was estimated at (740 km/hr.). The Swedish companies concerned with the design of jet engines at this period were Svenska Flyg-motor AB (SFA), AB Lundströms Ångturbin (ALA/AB) and Svenska Turbinfabrike AB Ljungström (STAL). Another SAAB design of the period was a development of the RX 1 designated the RX 2 "Merry Widow".

In the autumn of 1945 the first SAAB design on more detailed lines was revealed and was known as the R 101. Its appearance could be likened to the well-known Lockheed F-80 Shooting Star, of which SAAB had no knowledge at that time. When the design reached the stage when more detailed development was to be proceeded with, illustrations and a description was published of the Shooting Star, which was in series production. It was obvious that the entire SAAB design was bordering on obsolescence and there was little prospect of overtaking the lead gained by other manufacturers. As a result the R 101 was abandoned with reluctance, for SAAB were anxious to obtain experience in the design and construction of a jet fighter.

SWEDEN'S FIRST JET

During autumn 1945 it was decided that a jet propelled version of the SAAB 21A (J 21A) should be produced. At that time the de Havilland Goblin jet engine was released for export and some examples were purchased, one being installed in a conversion of the 21A designation SAAB 21R (J 21R). The prototype 21R flew for the first time on 10th March 1947 and a total of sixty were later delivered to the Swedish Air Force. Having established and produced a stop-gap jet fighter, SAAB were now able to give full attention to designing a jet fighter of advanced configuration.



The first prototype SAAB 29 "Tunnan" (serial 29001) flew for the first time on 1st September 1948.

Second prototype J 29 (29002) bearing Swedish national markings.

First production J 29A (29101) *in flight.* (Photo: SAAB)

A J 29F of the F 4 Wing, Yellow F on fin.

A J 29B of the F 22 Wing with drop tanks and underwing pylons.

"BARREL" DEVELOPMENT

The first scheme for a new type of jet aircraft was drawn up at the end of October 1945, and the powerplant specified was the de Havilland Goblin engine with a thrust of approximately 3,100 lb. (1400 kp.) mounted immediately behind the centre of the fuselage. The pilot was seated above a single, straight air duct, producing a deep fuselage, and in order to keep the high speed profile wing free from cut-outs the retractable landing gear was located in the fuselage sides, thus imparting a circular cross-section to the fuselage.

For reasons of stability the tail boom supporting the empennage was lengthened beyond the lower, shortened section of the fuselage in which the engine exhaust was located. This enabled the full landing angle to be obtained with the low-positioned undercarriage.

Notwithstanding certain aesthetic imperfections, the many obvious advantages of the aircraft aroused the interest of the Swedish Air Force and work on the design was proceeded with experimentally. But certain events took place which were to result in a revised programme by the SAAB team. First, technical information from de Havillands in England was obtained relating to a larger engine—the Ghost—which was undergoing development, and which was estimated to produce a thrust of 5,000 lb. (2270 kp.). It was obvious that such a powerful engine would enable SAAB to design and produce a far more advanced fighter, and after negotiations between de Havillands and the Swedish Air Force SAAB was able to incorporate the engine in the new design. It was discovered that the relatively large diameter of the engine (approximately 4·5 ft. (1·35 m.)) was ideal for the fuselage dimensions, these being desirable for many reasons. The fact that the engine could also be fed via a central, circular air intake rendered it eminently suitable for the design.

Secondly, the SAAB engineers were able to obtain first-hand access to an immense quantity of experimental material devoted to high speed flight accumulated by German scientists during the war. This related primarily to the phenomena of drag and lift approaching sonic speed, and the possibilities of improving the performance of an aircraft in the higher speed range by the use of swept wings. This information led SAAB designers to select a wing with a moderate sweep back of 25 degrees combined with a thin profile. From the experimental material it was also possible to calculate how slender the fuselage should be in order that its critical Mach number should not reduce the advantages gained with the wing. The first "final" design sketches drawn during January 1946 incorporated all the new information, and the resultant aeroplane was of advance configuration.

Attack version of the J 29 was designated the A 29B. This aircraft served with the F 6 Wing at Karlsborg. Serial number 29439; *letter "I" on fin in yellow.*

PROJECT WORK—R 1001

With the new design it now seemed that SAAB was able to produce a fighter of such advanced performance that it would remain in service for a considerable period. SAAB estimated that a speed of "considerably exceeding 620 m.p.h. (1,000 km./hr.)" could be attained. The main outline was thus clear by February 1946, and the Swedish Air Force now requested that actual work be put in hand on the aircraft R 1001, as this type had been designated. Ten senior engineers and teams were seconded to the design programme and they were to be fully occupied for a total of six months in finding solutions to all the essential construction problems and verifying the preliminary particulars concerning weights and performance with the help of wind tunnel tests and exhaustive calculations.

The wind tunnel tests were started at the Royal University of Technology and the Aeronautical Research Institute, both in the low and high speed tunnels, a number of modified models being subsequently tested and the aircraft shape subjected to final modifications.

In order to give the new fighter the best conceivable lateral stability at take-off and touch-down, automatic slots were introduced on the outer wing section. These were to be interconnected with the flaps so that they were extended with the latter in the take-off and landing positions, but were automatically locked closed with the flaps retracted for high speed flight. To test the new system "Aircraft 201" was constructed; this was a converted SAAB 91A Safir fitted with a half-scale wing of the R 1001.

In the autumn of 1946 all main questions of principle had been solved and a complete specification of the aircraft drawn up. On the basis of this the Air Force placed orders for completing the design and manufacture of three prototypes (serials *29 001* to *29 003*). When this significant step had been taken the type received its definite designation—the J 29.

FINAL DESIGN

An experimental mock-up of the front portion of the SAAB 29 was constructed in order to test various sealing materials for the pressurised cabin, and after various attempts leakage was reduced to an acceptable maximum.

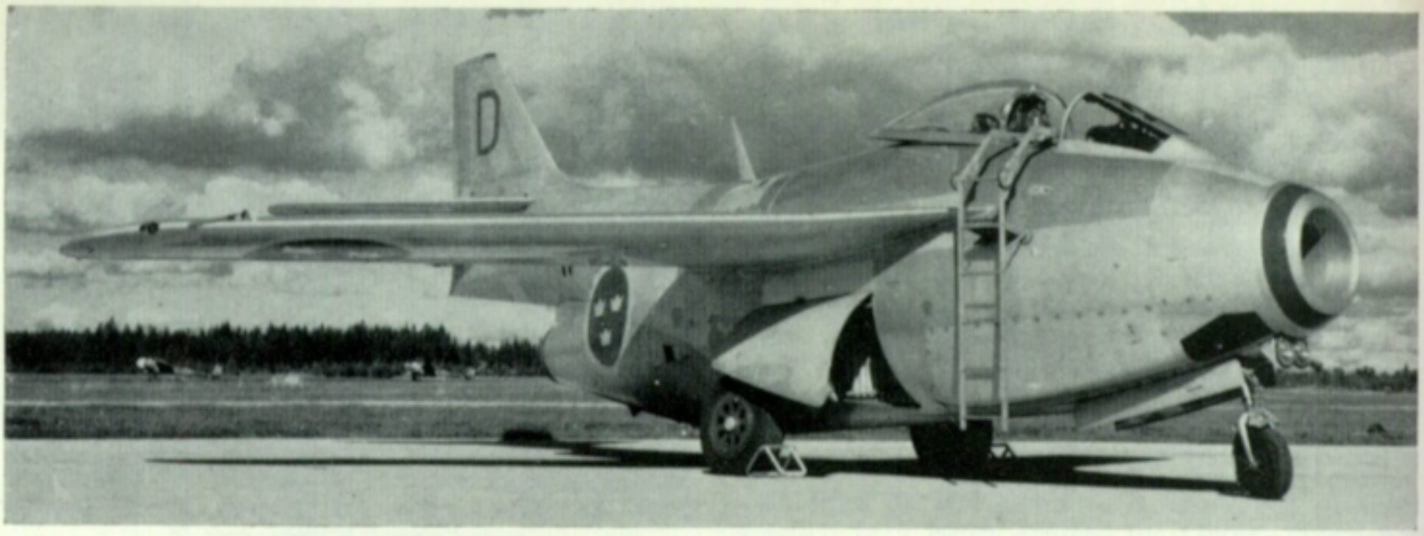
A new innovation for SAAB was the introduction of servo-controlled ailerons. During the summer of 1948 the complete aileron system was tested in a special rig, and as these tests appeared to be satisfactory it was expected that the first prototype J 29 (*29 001*) would fly before 1st August that year. But the servo system developed serious faults, and it was several weeks before these faults were traced and corrected; it was not until the end of August that the prototype was ready for initial taxiing tests.

Two J 29Fs of the F 3 Wing with Sidewinder missiles. Serial of nearest aircraft is 29606, *code* 24.

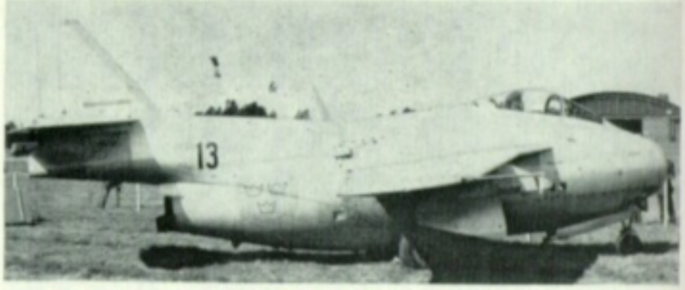
One of the first Wings to take delivery of the J 29A was F 9 at Göteborg. This aircraft (serial 29185*) lacks code on fin.*

A J 29F of the F 10 Wing. Serialled 29549 *it bore a blue "N" on the fin, and a black "N" on the blue stripe around the nose air intake.*

J 29F, 29506, *of the F 10 Wing carrying air exercise "friend or foe" identification markings.*



An S 29C photo-reconnaissance aircraft of the F 11 Wing.



A J 29A of the F 13 Wing as used for missile tests, etc. Note fairing for observation camera under tailplane and the wing pylon.

Test pilot, Squadron Leader Robert Moore, was in charge of the flying end of the test programme, and in the accepted sequence of events he made several short hops during the taxiing tests. All systems then underwent a final inspection and on 1st September a first flight of 30 minutes was made. On this occasion speed was kept to a minimum for the automatic slots were locked in the extended position and the landing gear doors only partially closed. The flying programme was so arranged that level speed runs were increased in stages with careful control of the many intermediate steps, but the J 29 soon reached and even exceeded the maximum permissible Mach-number for which it was designed. Manœuvrability was excellent and performance figures were in excess of those calculated.

The two first prototypes lacked armament but carried heavy test equipment, while the third prototype carried four 20-mm. automatic guns. The fourth, and final, prototype (*29 004*) was flown in 1950.

THE J-29 VARIANTS

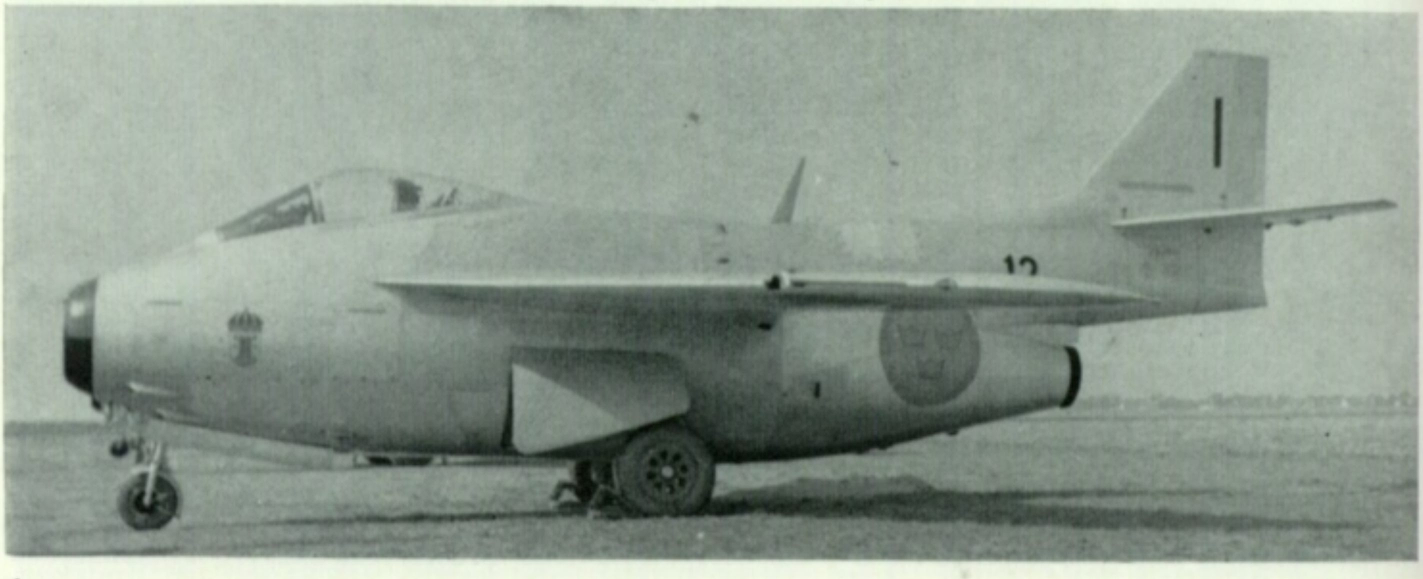
J 29A

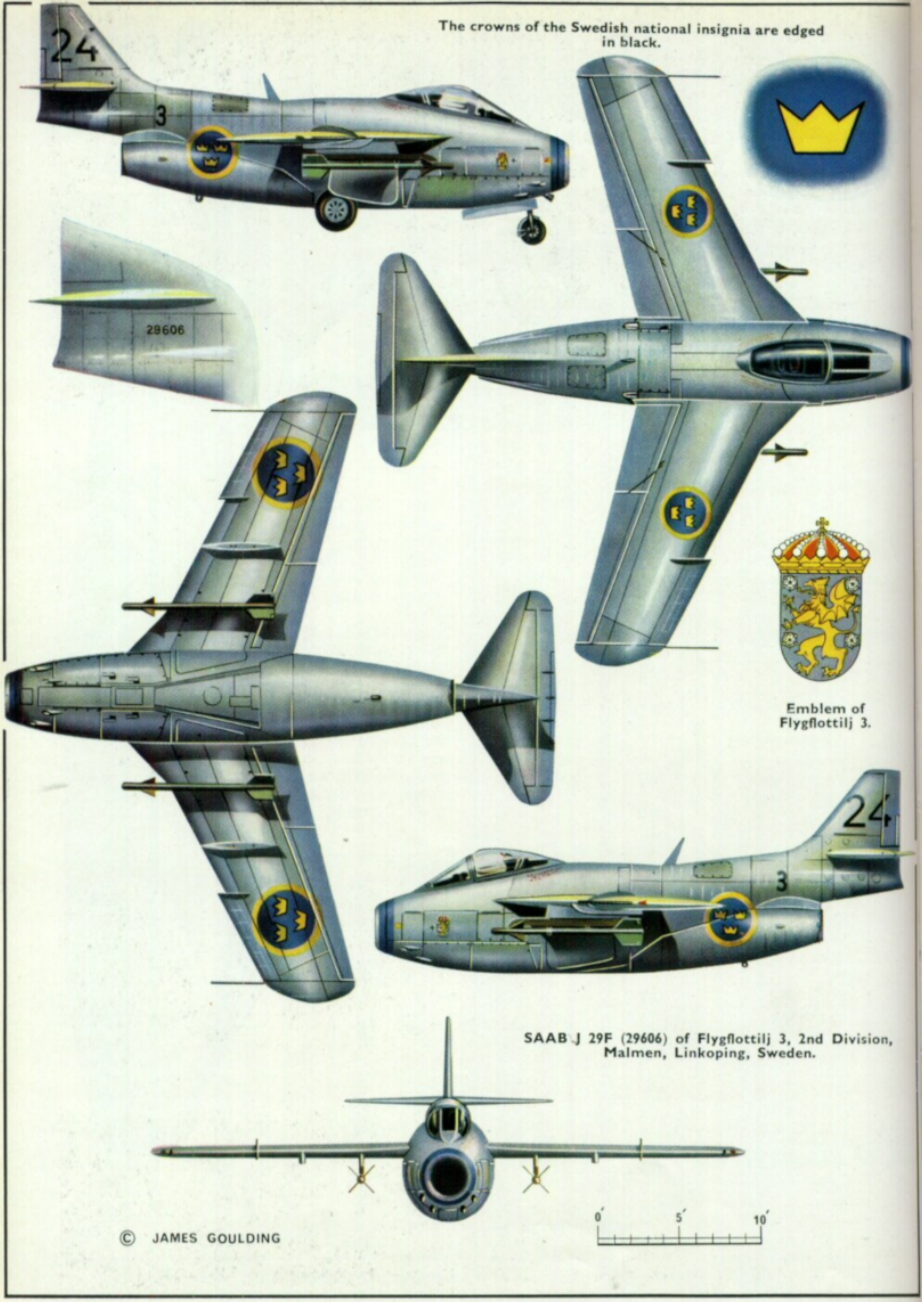
First version of the SAAB 29 to be built in quantity was the J 29A. The first sixteen (*29 101* to *29 116*) had trim tabs and wing dive brakes. Aircraft *29 117* to *29 132* also featured trim tabs and wing dive brakes, but subsequent aircraft had the dive brakes mounted in the fuselage sides forward of the landing gear doors. A total of 224 J 29As were built and delivered to the Swedish Air Force during the period May 1951 to June 1954.

During June 1946 the F 13 Wing at Norrköping began converting to the J 28A (Vampire FB Mk.1), the Swedish Air Force's first jet fighter. The J 28A was replaced by the J 29A as from May 1951, but the new fighter was not approved by the Air Force until January 1952. By that time it had survived intensive service tests in different climatic environments. In 1960 the F 13 Wing received the J 35A "Draken", but the last J 29A served until 1962.

Deliveries of the J 29A continued and in 1952 the

A J 29A of the F 12 Wing. Red letter "I" on fin; serial 29290.





The crowns of the Swedish national insignia are edged in black.

Emblem of Flygflottilj 3.

SAAB J 29F (29606) of Flygflottilj 3, 2nd Division, Malmen, Linkoping, Sweden.

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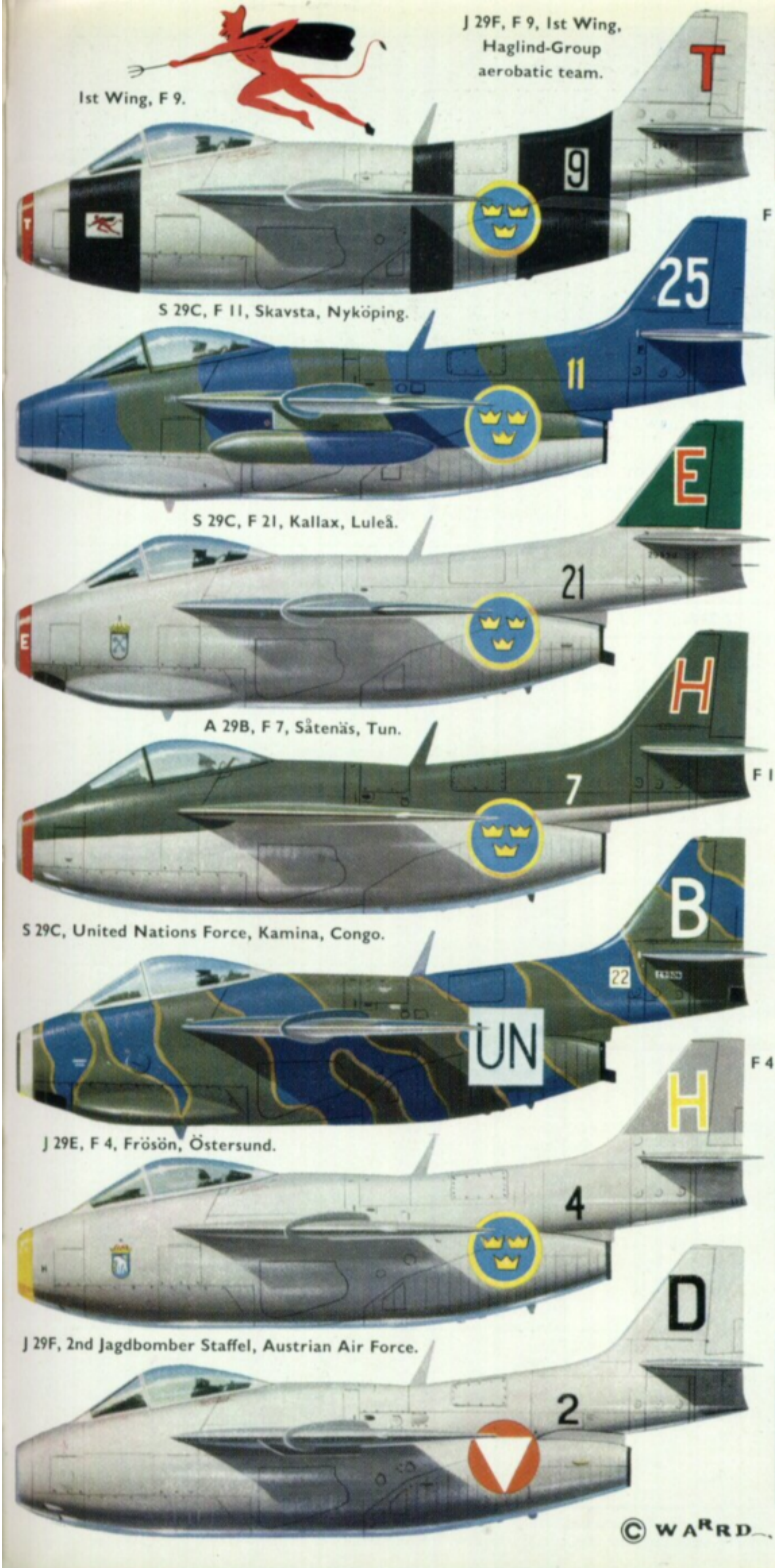


1st Wing, F 9.

J 29F, F 9, 1st Wing, Haglind-Group aerobatic team.

S 29C, F 11, Skavsta, Nyköping.

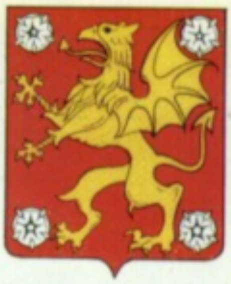
S 29C, F 21, Kallax, Luleå.

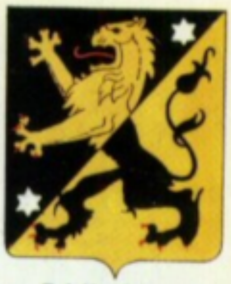
A 29B, F 7, Såtenäs, Tun.

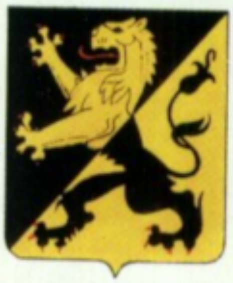
S 29C, United Nations Force, Kamina, Congo.

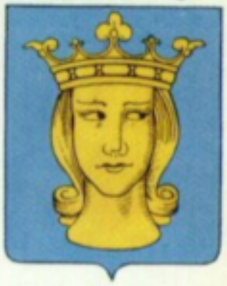
J 29E, F 4, Frösön, Östersund.

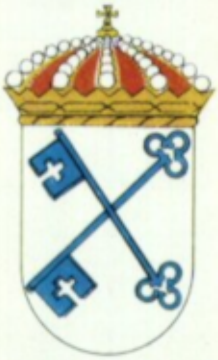
J 29F, 2nd Jagdbomber Staffel, Austrian Air Force.

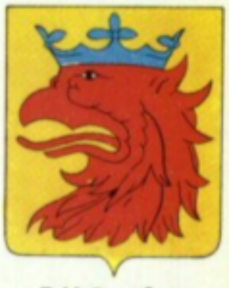

F 3 Malmen, Linköping.

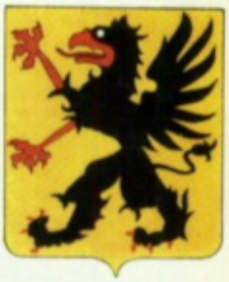

F 6 Karlsborg.

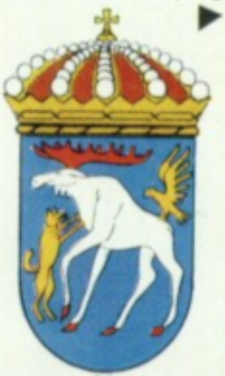

▲ F 7 Såtenäs, Tun.

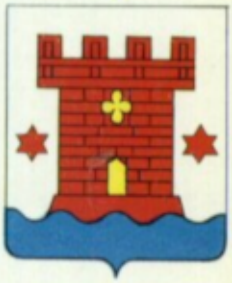

F 8 Barkarby, Stockholm.

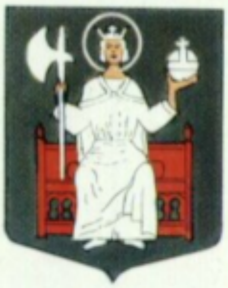

F 21 Kallax, Luleå.

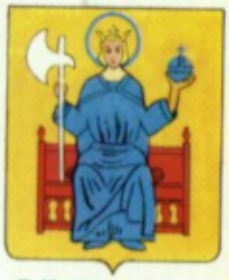

F 10 Barkåkra, Ängelholm.

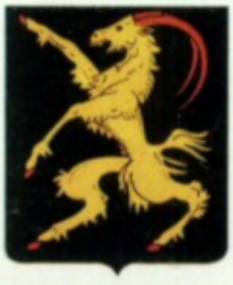

F 11 Skavsta, Nyköping. ▶

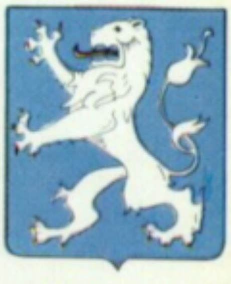

F 4 Frösön, Östersund.

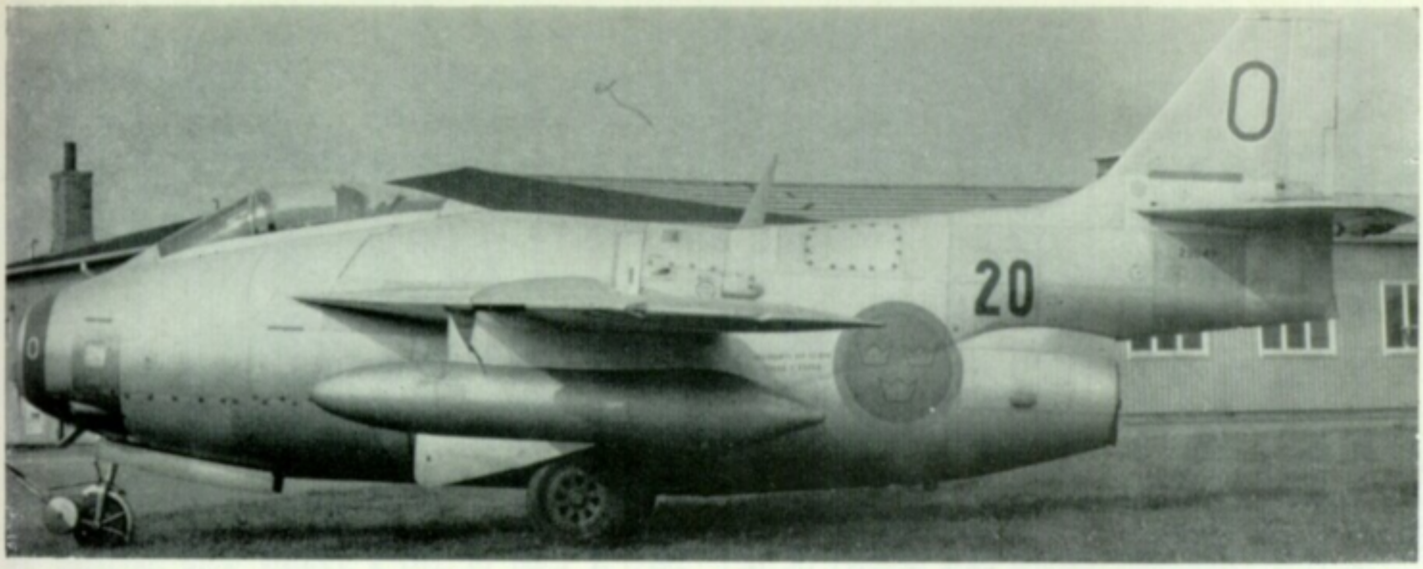

F 12 Kalmar. ▶


F 13 variation.


F 13 Norrköping.


F 15 Söderham.


F 14 Halmstad.



A J 29F of the F 20 Wing. Serialled 29649, it carried a red "O" outlined in white on the fin, and a white "O" in a red band round the nose air intake.

F 9 Wing at Göteborg converted from the J 28B (Vampire FB Mk.50) to the new fighter. Some of the J 29As served with the Wing until 1962. In 1956 the F 9 Wing also received the up-rated F conversion.

The F 12 Wing, stationed near Kalmar, converted from the J 21A to the 29A in 1952, and the last of the 29As were replaced by the J 32B Lansen in 1960. The F 16 and F 20 Wings took delivery of a quantity of J 29s in 1952 and these were phased out of service in 1963.

The F 3 Wing converted from J 28As to J 29As in 1953, and the latter served with the Wing for ten years. F 10 Wing at Ångelholm converted from the J 21R to the 29A in 1953 and the Wing operated the "Flying Barrel" for ten years.

A number of J 29As equipped the F 8 Wing at Barkarby from 1954, and the last remaining A conversion was still flying with F 8 in 1965.

J 29B

The B conversion differed little from the A, the main modification being extra fuel tanks installed in the wing, increasing the 1,400 litre (310 Imp. gal.) to 2100 litre (460 Imp. gal.) (internal). The J 28B was used as an attack aircraft and for this purpose could be equipped with rockets and napalm bombs. The first B prototype was flown on March 11th 1953 and during 1954 the B model set up a world air speed record of an average of 607·05 m.p.h. over a 310-mile closed circuit. A total of 332 J 29Bs (or A 29 (A-attack) as it was designated) were built and delivered during the period May 1953 to December 1955. Two hundred and eighty-nine J 29Bs were converted to the J 29F configuration. During 1953 the F6 Wing at Karlsborg converted from the A 21A to the A 29B, the latter serving until 1957 when the A 32A entered service.

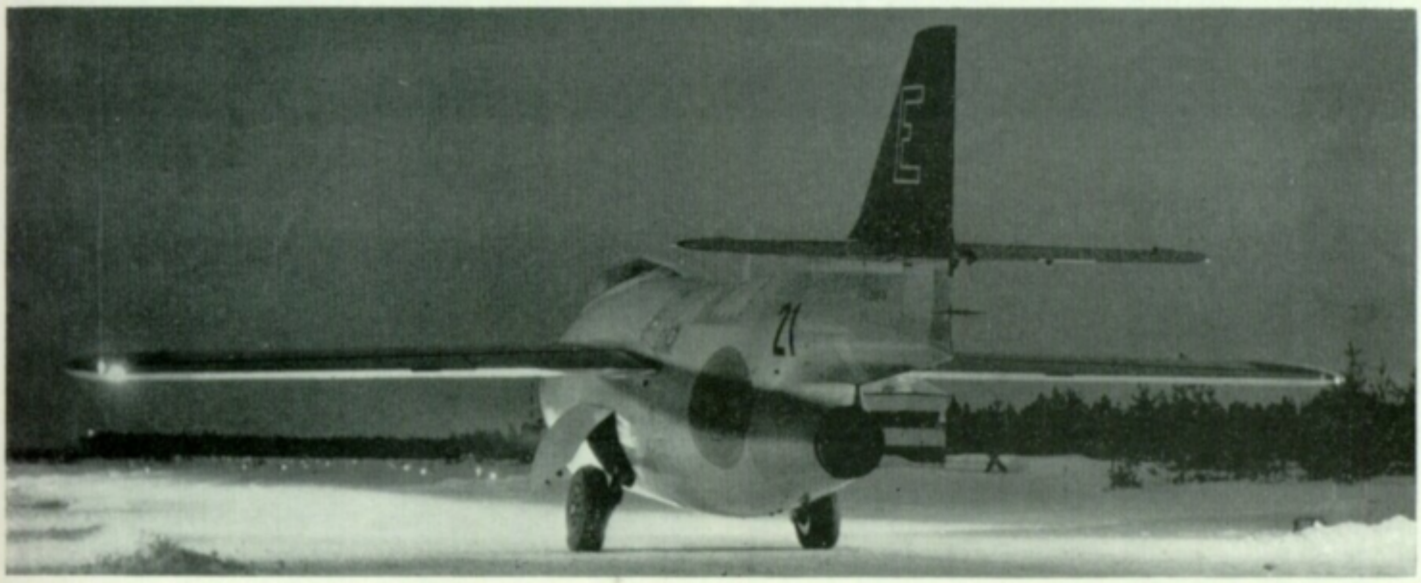
The F 8 Wing at Barkarby received the 29B in 1953, and from 1955 it served parallel with the J 34 (Hunter F.4) until 1964.

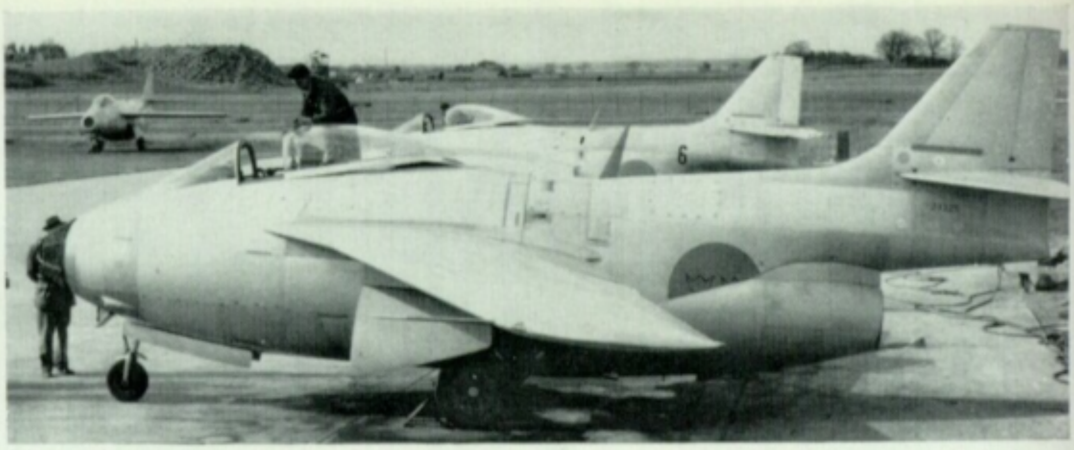
Another Attack Wing to receive the A 29B was the F 7 Wing at Såtenäs. The Wing's A 21Rs were replaced by the 29B in 1954, the latter serving for two years before being replaced themselves by the A 32A.

S 29C

On 3rd June 1953 the first prototype (*29 901*) of a new photo-reconnaissance plane made its first flight. This was the SAAB 29C which was given the designation S 29C by the Swedish Air Force. During the period May 1954 to May 1956 a total of 76 29Cs were built and delivered, and the type was basically similar to its immediate predecessor with the exception of the fuselage nose section, which was modified to accept the installation of seven cameras. A new international

An S 29C of the F 21 Wing, Lulea. Red "E" on fin outlined in white; serial 29920. Note radar antenna under tailplane.





The first SAAB 29 to be converted to D-standard was 29325. *This aircraft, an experimental variant, never saw service in this guise with the Flygvapnet.*

speed record over a 621-mile closed circuit was established by a flight of two S 29Cs in 1955.

The F 11 Wing at Nyköping took delivery of the first 29Cs during August 1953 as replacements for their S 31S (Spitfire Mk.19s), but the SAAB machine did not receive Air Force approval until the following May. The 29C was still serving alongside the S 32C Lansen in 1965 until replaced by the S 35E Draken.

The F 21 Wing at Luleå converted from the S 26 (photo-reconnaissance version of the Mustang fighter) in 1954, and in late 1965 the 29C was still serving in parallel with the J 32B.

Originally the S 29C had the same wing as the J 29A and B, but this was modified to E/F standards ("Dog tooth" leading edge). An external antenna for backwards-looking radar was originally installed in the tail cone, but this was later re-located in the fuselage.

SAAB 29D

Parallel with the licence-production of the de Havilland Ghost engine, Svenska Flyg-motor AB (SFA) developed an afterburner which was installed in a standard J 29B (*29 325*) airframe. After a period of flight and other tests, during which it was designated the SAAB 29D, the aircraft was converted to J 29F standard and delivered to the Air Force.

J 29E

During the same period when tests on the SAAB 29D were taking place work was also proceeding on a modified wing shape intended to raise the critical Mach number of the J 29. The first aircraft to be fitted with the new wing was designated the 29E and it flew for the first time on 3rd December 1953. The wing incorporated the "dog tooth" leading edge and a total of 29 J 29Es were built and delivered during the period March to December 1955. All served with the F4 Wing at Östersund for one year when the 19 remaining aircraft of the original batch were converted to F standard.

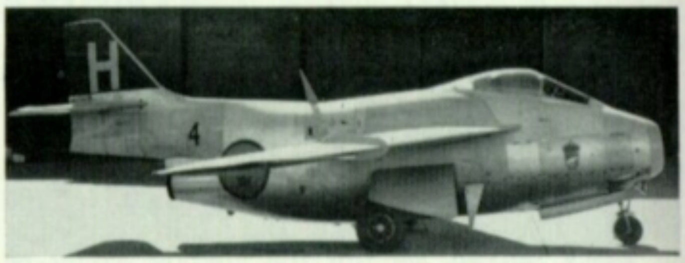
J 29F

The J 29F was the last variant of the Flying Barrel design and it differed from previous versions in many respects. The most noticeable modification was the introduction of the afterburner developed by the Royal Swedish Air Board in co-operation with SFA and flight tested in the SAAB 29D. The afterburner increased thrust of the Swedish-built Ghost engine by a considerable margin, and it is interesting to note that the SFA afterburner was the first to be successfully used with a British jet engine. The 29F prototype flew for the first time on 20th March 1954 and was fitted with the modified wing as standardised on the 29E. A total of 210 J 29B/Es were modified by SAAB to F standard and delivered between February 1955 and May 1958. A further 98 aircraft were modified to F standard by the Central Workshop of the Swedish Air Force at Västerås (CVV) during May 1957 to December 1958.

The first unit to re-equip with the new 29F was the F 3 Wing at Malmslätt and it served with this Wing until 1965, when replaced by the J 35 Draken. The F 4 Wing received the J 29F in 1956 and the aircraft was still front-line equipment in 1965.

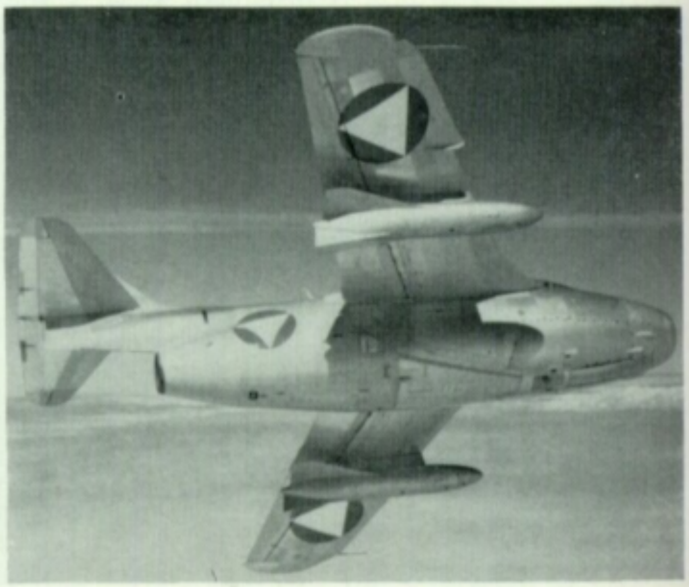
During 1956 both the F 9 and F 10 Wings were equipped with the J 29F. The former Wing operated their machines until 1963 when they converted to the J 34 (the aircraft being transferred from the F 8 and F 18 Wings). A number of J 29Fs were still serving alongside J 35Ds with F 10 in 1965.

The F 15 Wing at Söderham converted from the



SAAB J 29E of the F 4 Wing. Serial 29357.

One of the first of 15 J 29Fs delivered to Austria. Serial 29457.



SAAB 29 PRODUCTION AND DELIVERIES

Type	Number	Sw AF serials	Delivery periods	Notes
J 29A	224	29101–29324	May 10, 1951–June 8, 1954	
J 29B	332	29328, 29329, 29334, 29335, 29338, 29341, 29344, 29354, 29358, 29363-29366, 29370, 29371, 29374, 29375, 29378, 29385, 29386, 29391, 29393, 29298, 29414, 29418, 29430, 29438, 29440, 29445, 29465, 29473, 29475, 29478, 29481, 29494, 29521, 29523, 29533, 29544, 29546, 29580, 29584, 29645	May 26, 1953–Dec. 2, 1955	The serials are from those 43 a/c which never were converted to J 29F standard.
S 29C	76	29901–29976	May 3, 1954–May 3, 1956	
SAAB 29D	1	29325	—	Experimental: not delivered to the Flygvapnet.
J 29E	29	29345, 29460, 29477, 29532, 29556, 29574, 29600, 29615, 29623, 29639	March 15, 1955–Dec. 29, 1955	Serials only given for those 10 a/c which were never fully converted to J 29F standard.
J 29F	308	29325–29327, 29330–29333, 29336, 29337, 29339, 29340, 29342, 29343, 29346–29353, 29355–29357, 29359-29362, 29367–29369, 29372, 29373, 29376, 29377, 29379–29384, 29387-29390, 29392, 29394–29397, 29399-29413, 29415–29417, 29419–29429, 29431–29437, 29439, 29441–29444, 29446–29459, 29461–29464, 29466-29472, 29474, 29476, 29479, 29480, 29482–29493, 29495–29520, 29522, 29524–29531, 29534–29543, 29545, 29547–29555, 29557–29573, 29575-29579, 29581–29583, 29585–29599, 29601–29614, 29616–29622, 29624-29638, 29640–29644, 29646–29685	Feb. 11, 1955–Dec. 15, 1958	Serials for those 289 J 29B + 19 J 29E which were converted to J 29F standard.

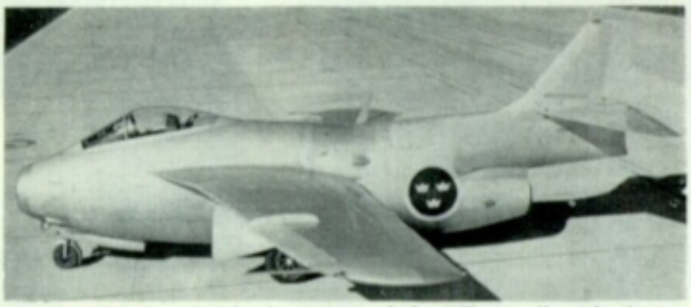
J 28B to the J 29F during 1957, and the latter served with this Wing until 1961 when it re-equipped with the A 32A and became an attack unit.

The F 16 and F 20 Wings at Uppsala successively equipped with the J 29F and a number of them were still serving with these units in 1965. From the end of 1963 all 29Fs in front-line service were equipped with the American Sidewinder infra-red seeking missile (Rb 24), one under each wing.

A total of 661 SAAB 29s were constructed and delivered from May 1951 to May 1956, and of these 308 (29B and Es) were converted to J 29F standards. In 1965 two Air Force Units were still equipped with the 29F as front-line types, and two reconnaissance units, F 11 and F 21, were still operating the S 29C.

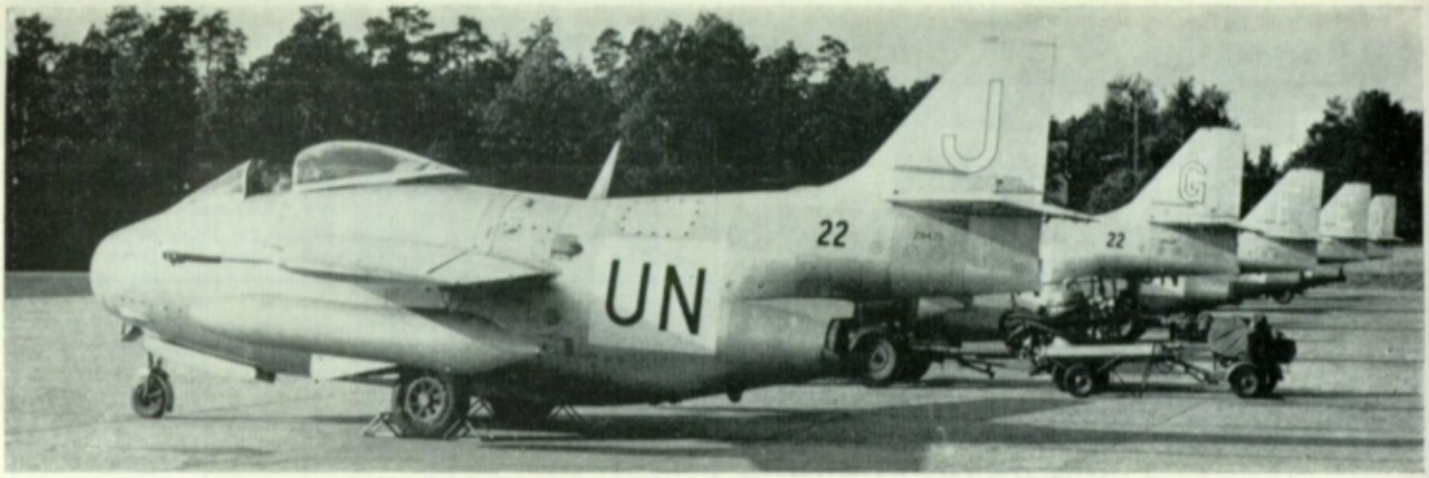
FOREIGN SERVICE

In 1961, following an appeal by the United Nations, the Swedish Government sent five J 29Bs to the Congo to provide support and cover for the UNO ground forces. The Swedish UN unit was called the F 22 Voluntary Air Component and the 29Bs carried the legend "UN" in black on a large, white, square background. The 29Bs were equipped with eight 140-mm. rockets and could also carry two jettisonable fuel tanks under the wings. The J 29Bs were the only combat aircraft at UNO's disposal in the Congo following the withdrawal of Indian Canberras and Ethiopian Sabres and in October 1926 two S 29C reconnaissance fighters joined the original detachment.



J 29F (29517), *the final variant of the "Tunnan". Afterburner alters the aircraft's configuration aft of the wing.*

The story of F 22 began on 24th September 1961 when the Swedish Government placed the J 29 fighter bombers at UNO's disposal, and the aircraft and personnel arrived at Leopoldville on 4th October. The


The five J 29Bs in Sweden before shipment to the Congo in 1961.

unit's first temporary base was Luluaborg, but they moved on to Kamina where they stayed until their return to Sweden in 1963. The two 29Cs followed the original 29Bs, and in late 1962 a further four 29Bs reached the Congo. Four of the eleven aircraft returned to Sweden in 1963, the other seven being destroyed in August/September 1963. A detailed list of F 22's J 29s and their eventual fate is as follows:—

Type	*Serial*	*Coded*	*From Sweden*	*Notes*
J 29B	29374	White D	28.9.1961 (F 8)	Crashed after fall out of engine 23.3.63 at Kamina. Blown up.
J 29B	29393	White E	28.9.1961 (F 8)	Blown up at Kamina 1963.
J 29B	29398	White F	28.9.1961 (F 8)	Returned to Sweden 27.4.63 and placed at F 3 for museum.
J 29B	29440	White G	28.9.1961 (F 8)	Crashed at Kamina 16.3.62. Blown up.
J 29B	29475	White J	28.9.1961 (F 8)	Seriously war damaged, blown up at Kamina 1963.
J 29B	29364	White G	7.12.1962 (Arlanda)	Blown up at Kamina 1963.
J 29B	29445	White H	10.12.1962 (Arlanda)	Blown up at Kamina 1963.
J 29B	29371	White C	13.12.1962 (Arlanda)	Returned to Sweden 27.4.1963 and scrapped.
J 29B	29365	White I	16.12.1962 (Arlanda)	Blown up at Kamina 1963.
S 29C	29944	White A	22.10.1962 (Arlanda)	Returned to Sweden 27.4.1963 and put in Air Force service.
S 29C	29906	White B	18.10.1962 (Arlanda)	Returned to Sweden 27.4.1963 and put in Air Force service.

FOREIGN DELIVERIES

On 27th January 1961 the Swedish Government granted the Air Board permission to sell 15 J 29Fs to SAAB for delivery to Austria. The amount was 8 050 000 Sw crowns (£536,500). The 15 aircraft were restored at SAAB and delivered to the Austrian Air Force, forming the first Jagdbomber-Staffel.

In 1962 the Air Board received Swedish Government permission to sell a further 15 J 29Fs to Austria. The amount was 7 700 000 Sw Crowns (£513,300). These aircraft were restored and specially converted by AB Svenska Flygverkstäderna in Malmö. Instead of the two guns in the port side of the nose three cameras could be mounted in a special capsule. The cameras

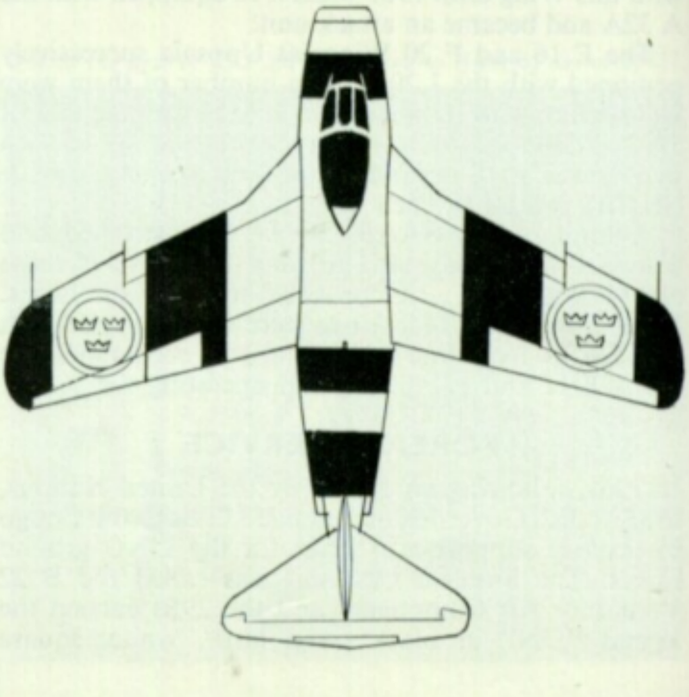
(Continued on page 12)

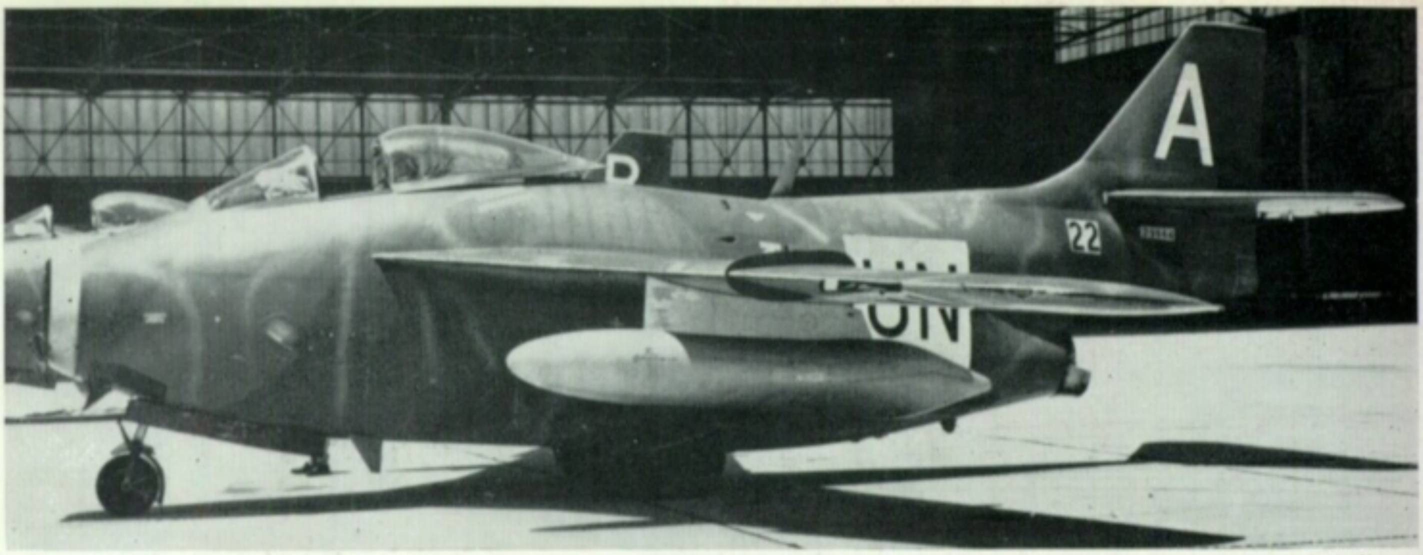
SAAB 29 SERVICE WITH THE SWEDISH AIR FORCE

Wing	*Type*	*Period*	*Notice*
F 3 (Malmslätt)	J 29A	1953-1963	
	J 29F	1955-current	First-line service.
F 4 (Östersund)	J 29E	1955-1956	
	J 29F	1958-current	First-line service.
F 6 (Karlsborg)	A 29B	1953-1957	
F 7 (Såtenäs)	A 29B	1954-1965	
F 8 (Bakarby)	J 29B	1953-1964	
	J 29A	1954-current	The last J 29A at the F 8 Wing in 1965.
F 9 (Säve)	J 29A	1952-1962	
	J 29F	1956-1963	
F 10 (Ängelholm)	J 29A	1953-1963	
	J 29F	1956-1965	
F 11 (Nyköping)	S 29C	1954-current	First-line service.
F 12 (Kalmar)	J 29A	1952-1960	
F 13 (Norrköping)	J 29A	1951-1962	
F 15 (Söderhamn)	J 29F	1957-1961	
F 16/20 (Uppsala)	J 29A	1952-1963	
	J 29F	1961-current	At F 20.
F 21 (Luleå)	S 29C	1954-current	First-line service.
F 22 (UNO forces in Congo)	J 29B	1961-1963	
	S 29C	1962-1963	

The Flottilj emblems illustrated on the opposite page were nearly always applied to the a/c with rounded base surmounted by a crown. There were exceptions as shown by the emblem of F 13 which was applied to the a/c in the shape and colours illustrated (green ground, white and red).

Plan view detail showing air exercise "enemy" and "friendly" markings. The markings varied somewhat in position and area covered but were exactly similar above and below.





The two S 29C photo-reconnaissance aircraft allocated for the Congo are seen here in the revised colour scheme. Aircraft "A" was serialled 29944 and "B" 29906. (Photo: Air Britain)

were movable in different directions from the cockpit during flight. The exchange of equipment took about 30 minutes.

The second batch of 15 J 29Fs equipped the second Jagdbomber-Staffel of the Austrian Air Force.

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SAAB 29 SPECIFICATION

Designation	J 29A	J 29B (A 29B)	S 29C	J 29E	J 29F
Powerplant:					
Original designation	De Havilland Ghost DGT3	De Havilland Ghost DGT3	De Havilland Ghost DGT3	De Havilland Ghost DGT3	De Havilland Ghost DGT3 + afterburner
Built by	SFA	SFA	SFA	SFA	SFA
Military designation	RM2	RM2	RM2	RM2	RM2B
Thrust (lb.)	4,750	4,750	4,750	4,750	4,750+
Weight (lb.)	1,900	1,900	1,900	1,900	1,930
Dimensions:					
Span (ft./in.)	36 ft. 1 in.	36 ft. 1 in.	36 ft. 1 in.	36 ft. 1 in.	36 ft. 1 in.
Length (ft./in.)	33 ft. 2 in.	33 ft. 2 in.	33 ft. 2 in.	33 ft. 2 in.	33 ft. 2 in.
Height (ft./in.)	12 ft. 3 in.	12 ft. 3 in.	12 ft. 3 in.	12 ft. 3 in.	12 ft. 3 in.
Wing area (sq. ft.)	258 sq. ft.	258 sq. ft.	300 sq. ft.	300 sq. ft.	300 sq. ft.
Fuel Capacities:					
Internal in the fuselage (l)	875	875	875	875	875
Internal in the wing (l)	—	430	430	430	430
Drop tanks (l)	2×250	2×310	2×310	2×310	2×310
Weights:					
Empty (lb.)	9,500	9,500	9,700	9,500	9,900
Normal flight (kg)	12,000	13,200	13,360	13,200	13,700
Maximum overload (lb.)	14,200	15,600	15,900	15,600	16,000
Performance:					
Maximum speed (m.p.h.)	636	636	636	636	658
Cruising speed (m.p.h.)	500	500	500	500	500
Landing speed (m.p.h.)	90	90	90	90	90
Rate of climb (ft./s)	7,500	7,500	7,500	7,500	7,500
Ceiling (ft.)	45,000	45,000	45,000	45,000	50,800
Take-off runway to 15 m. (m.)	984	984	984	984	900
Landing run from 15 m. (m.)	1,000	1,000	1,000	1,000	1,020
Cameras:	— — — —	— — — —	Ska 5 Ska 10 Ska 15 Ska 16 Maximum seven at the same time. Alternative mountings.	— — — —	— — — —
Armament:					
Guns	Four 20 mm.	Four 20 mm.	—	Four 20 mm.	Four 20 mm.
Rockets and bombs	14× 105 mm. rockets or 4 heavy rockets	14× 105 mm. rockets or 4 heavy rockets	— — —	8 × 140 mm. rockets or 4 heavy rockets	24 × 75 mm. rockets or 8 × 140 mm. rockets + 2 firebombs.
Missiles	— —	— —	— —	— —	2 Sidewinder R6 24.

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